

# Virginia WILDLIFE

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Karl H. Maslowski from National Audubon Society

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*November Retreat*

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# Virginia WILDLIFE

Published by VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES, Richmond 13, Virginia

*A Monthly Magazine Dedicated to the Conservation, Restoration, and Wise Use of Virginia's Wildlife and Related Natural Resources, and to the Betterment of Hunting and Fishing in Virginia*

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## *Cover*

Bow and arrow hunting fanatics will have a week all to themselves on the Big Levels Refuge in Augusta County come November 9-14. During the hunt, all game birds and animals will be legal except turkey. (See story, page 18)

Commission staff photo

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# November Reflections

NOVEMBER IS, for many reasons, an outdoor month. By now the so-called big American show is fast giving way to the slumber that is winter. Most of the hardwoods, except for the broad-leaved oaks, have lost their leaves. The persimmon trees and the black walnuts are bare, but their frost-bitten fruits and nuts still cling in clusters to some naked branches. The main green of the hinterland is in the pines—Virginia pine, loblolly, shortleaf. And there are the glossy-leaved hollies. The cedars are a brownish green but they are in the same class with the faded green of honeysuckle.

The shrubs, too have lost many of their gaudy October frills. The staghorn sumac looks dead except for its crimson bundles of ripening seed. The alders, myrtles and other small woody plants look forlorn.

The meadows and marshes are also shorn of their bright colors. Cattails and bulrushes look limp, lifeless. Gone are raucous redwings that gave so much air and life to the lowlands.

People in general accept November with a little sadness. But there is no reason for dejection. This is simply Nature's way of putting living plants to sleep. It is the twilight stage approaching another winter season.

To the nimrod, November days mean the thrill of the chase once more—a chase that began long before the dawn of history. Born of grim necessity when the struggle with nature was violent, hunting has come to be a recreation, a pastime, a way of getting back to the joys of primeval living. It is an opportunity to get away from crowds, noise, noxious gases, tension and countless other irritations which make man nervous, and give him a chance to enjoy the companionship of kindred spirits.

But November causes other reflections. It is the time when folks pause for a moment to reflect on the blessings of the year. It brings Thanksgiving Day, a purely American feast, when we can "give religious thanks to God for the year's bountiful harvest."

In America the sportsman is particularly grateful. He has reason to thank Providence for the all year round harvest.

Few peoples in the world have the outdoor recreational opportunities of Americans. While we may not have the game of some tropical or sub-tropical areas or the abundance of earlier days, we still can find a place to hunt and fish and recreate. Most of us still can say that we have more hunting and fishing opportunities than our business or work load will allow.

Grateful too is the American sportsman for his freedom to own firearms. It is our Constitution-born privilege and it is not to be denied. In many parts of the world where the light of liberty has flickered out to become mere history, the hopeful nimrod cannot hunt because the right to own a gun is denied him. What a lesson for freedom-loving men!

And so we pause in our November reflections—a distinctly American November and recite our thanks. Those of us who put on boots have ample time for added contemplation. This season when we tumble out a fast-flying mallard or drop a brown bombshell over the quail coverts or simply watch an antlered white-tail in the view finder of our camera, pause for a moment and reflect upon the blessings of November and the whole year. Let's resolve that we will share these blessings and do our part to keep them with us in future years.

—J. J. S.



Photo by H. S. Masby

A deer is public property, a steer is private property, but does this difference in ownership justify the difference in penalty for the illegal killing of these animals?

## *Problems we face in* **Enforcing The State Game Laws**

By ELLIOTT S. BARKER

**A**FTER reluctantly assessing a \$25 fine on a hunter brought in for killing a deer out of season the judge remarked, "This matter of enforcing the game and fish laws is just a piddling business anyway." Fortunately, all judges do not take that attitude, but the maximum fines and jail sentences which may be assessed for flagrant illegal destruction of wildlife are "piddling" compared to penalties for similar crimes.

I once lay out most of the night with one of my men waiting for a couple of men, who had gone into an elk area with rifles and pack mule, to come back to their truck left at the end of a dim road. We felt sure they had gone in after wild meat, probably elk. Just before dawn they returned, loaded the mule and fresh meat onto their truck and drove to where we had the road blocked. Upon search of the truck we found a Hereford yearling steer instead of an elk. The men were sent to the state penitentiary: one for three years—one for five years.

The yearling steer was worth then about \$50. An elk, according to the valuation set by New Mexico law is worth \$200, yet if it had been an elk instead of a steer, the maximum fine which could have been assessed was

\$300 and/or 90 days in jail. The elk is public property and the steer private property, but does that justify the difference in penalty for the illegal killing?

Maybe the enforcement of game laws is a "piddling business" but such a contention could not well be established on the basis of the value of the wildlife resources of these United States and their importance to some 29 millions of people who annually buy licenses to hunt and fish. The money value of New Mexico's game mammals, game birds and game fish computed on the statutory value set for each species amounts to no less than \$100,000. For the whole United States the actual money value of wild game and fish runs into many billions of dollars. The esthetic and recreation value is, of course, even greater.

In New Mexico the 163,000 purchasers of hunting and fishing licenses spend an average of about \$125 each to carry on hunting or fishing activities. That means over \$20,000,000 spent with businessmen of the state, which would not be spent if we had no game or fish to pursue for recreation. That same figure applied to the 29 million hunters in the United States gives the total sum of \$3,625,000,000 spent by sportsmen in direct connection with their hunting and fishing activities. Would the Chamber of Commerce call that a "piddling" busi-

\* This article has been condensed slightly and reprinted by permission of the FBI Law Enforcement Bulletin. Mr. Barker, the author, recently retired from the position of State Game Warden of New Mexico.

ness? Others have put this figure much higher.

If one should ask any of the 13 million hunters or 16 million fishermen of the United States how much his chosen form of recreation, that is, hunting and fishing, means to him, the answer in most cases would be in effect that this great privilege is far too important to be measured in dollars and cents. But if these 29 millions of people are to continue to enjoy this God-given privilege, the resource which provides the means to enjoy it must be protected.

In my opinion there is no more worthy cause than the conservation of our wildlife resources for the benefit and enjoyment of present and future generations. The game warden, conservation officer, or game management officer, by whatever title he is designated, is a highly essential officer, filling a most important position, and worthy of the respect and cooperation of all other officers and the public as well. Certainly no other officer works under more trying conditions and puts in longer hours than the game warden, too often for a mediocre salary.

The guardians of our wildlife resources, generally speaking, must employ the identical techniques in running down the hardened game law violator as other officers use in solving murders, kidnappings, burglaries, etc. Fingerprints, soil analysis, firearms, cartridge case and bullet identification, casts of tire and foot prints, pictures of the scene, handwriting, etc. are evidence-collecting facilities which the up-to-date game warden must employ.

A few years ago we had a case where a man was accused of killing a deer out of season on a refuge. All the evidence pointed to him, but he stoutly denied the charge. Fortunately the bullet which killed the deer was recovered and was sent to the FBI Laboratory in Washington, along with another bullet fired from the defendant's rifle. The enlarged photograph of the two bullets placed base to base showed rifle lands, scratches and other markings matched as perfectly as the grain in a board would if sawed in two and the ends placed together. The defendant carried the case from justice of the peace court and on through the state supreme court. The prosecution relied heavily on the ballistics evidence and it stood up firmly and the verdict of guilty was confirmed by the higher court.

The major game law violations such as dynamiting fish, killing deer, elk and antelope out of season, occur far out in the country. In the great majority of cases there are no eyewitnesses. Instead, the warden finds where the animal was killed or fish dynamited and builds his case from the ground up. The officer must be a close and careful observer, for it is at the scene of the crime that he must get evidence to identify the guilty party and connect him with the crime.

One deer killing case two weeks old was solved by the fact that the game warden noted man tracks going and coming over the same route to the spot where the deer had been dressed and loaded on a horse in a mountain park. Following these tracks about 50 paces to the nearest bush he found an envelope which had been



Warden Sam Stanford displays three rabbits killed at night, on Sunday, and before the season was open. Such disrespect for the game and fish laws is common among some individuals.

Commission photo by Kesteloo

torn up. The scraps of paper were pieced together and the man's name and address were obtained. With the aid of a search warrant, part of the meat and the hide were found at his home and a conviction obtained.

I once got a vicious case of elk and deer killing by finding at the half dugout cabin the out-of-season hunters had built in the Pecos Wilderness, the carcasses of a pair of pine marten which are very rare in New Mexico and whose fur is quite valuable. A local fur dealer unwittingly revealed the identity of the guilty parties from whom he had bought the furs.

Once in a great while, a warden happens to be in the right place at the right time and gets an eyewitness case. Warden Homer Pickens, a few years ago, was driving near Roswell, New Mexico, on U. S. Highway 70 when he noticed a car a quarter of a mile ahead pull off the road and stop. A man got out quickly and shot at some antelope near the road. He not only saw the man shoot but saw an antelope fall, and was at the spot before the despoiler got to it. Seventeen minutes later the man was in jail and wiring home to another state for money to pay his fine.

One of my men had been receiving reports of illegal seining of fish in the Canadian River, but many tries had failed to find anyone with illegal equipment. Finally, acting on a hunch that the seiners had gone into the canyon, he rented an airplane and flew over the area where he saw the unsuspecting culprits busily engaged with their illegal nets. The game warden landed at a nearby ranch house, borrowed a pickup truck and drove back to the rim of the canyon and was upon the seining party before they knew it.

A considerable number of investigations of illegal taking of game and fish is initiated as the result of a tipoff. Usually the informant doesn't want his identity

known, so, from that starting point, evidence to convict must be worked up. We appreciate such tips and only wish there were more of them.

It has always puzzled me why so few sportsmen are willing to report a violation of the game laws, much less permit their names to be used or to appear as a witness. After all, it's their property the game wardens are trying to protect. Ninety-nine persons out of 100 would call the police if they saw a burglar breaking into a neighbor's house. But there's not one in five who will promptly report a case of a game law violator breaking into nature's wildlife treasure house and stealing the public's game. "That's the game warden's business—let him catch them!" That theory is not so practical when one considers that each district warden in New Mexico has about 8,000 square miles of territory to cover. It doesn't seem to me it is "squealing" to report a man's stealing one's own property.

Binoculars and telescopes are mighty helpful sometimes in watching hunting and fishing activities from a distance when no warden is believed to be around. But even so, illegal game or fish is sometimes disposed of before the warden can get to the culprit. One case I call to mind occurred when Warden M. Stevenson was watching, through binoculars, from 200 yards away, a man and his wife shooting mourning doves. The quail season was closed, but when a covey of quail flew up from the weed patch, both hunters fired three shots at them and knocked down quite a number. The warden had to go a little way round to get to the hunters who, after picking up the quail, evidently had spotted his car. When he got there he checked their licenses and then their game bag. To his consternation he found only doves and the hunters denied having shot any quail. The warden had seen them pick up the quail

Training requirements of game wardens differ little from those of other law enforcement officers, yet some jurists call their job "a piddling business."



so he searched about in the weeds thinking they might have thrown them away, but found nothing. While conversing with the man and the young women, he noticed that the woman's clothing seemed unusually bulky.

He had found the quail, but how to get them was his problem. Having seen the lady shoot the quail, he told her he was putting her under arrest and if she didn't produce the quail, he would have to have her searched. She hesitated, then turned her back and produced a half a dozen nice fat quail.

It is illegal in New Mexico to fish for trout at night. One time two of my men located two men fishing about midnight. There was only a pale moon and they stealthily approached, one from upstream and the other from downstream. One of the fishermen heard or saw the warden approaching him and quickly jerked his line out of the water, broke the lure and hooks off and threw them in the river. The warden turned on his flashlight and asked.

"What's the idea of fishing this time of night?"

"I wasn't fishing," was the reply. "See, no hooks."

"What were you doing then?"

"Just soaking up the leader so it would be in good shape in the morning."

The other fisherman was not quite so quick and the other warden grabbed his line and found the hook was baited with a live minnow.

"I suppose you weren't fishing either?" commented the warden.

"—, no, I wasn't fishing," asserted the angler.

"Just what *were* you doing?"

The reply was quick and to the point, "I was just exercising that minnow so he would be in good shape in the morning."

The bulk of hunters and fishermen are good sportsmen, fine men and women with a love of the outdoors in their hearts. Would to goodness they were all that way. Unfortunately there are many who have not yet learned the meaning of sportsmanship, and their nefarious practices give the whole fishing and hunting fraternity a bad name. Educational programs are fine and do some good, but there will always have to be law enforcement officers.

The better trained and better equipped these men are the better job they can and will do. The more modern scientific methods they can learn and use and the more laboratory facilities are made available to them the more hard premeditated, carefully planned violations will be solved.

The Federal Bureau of Investigation has very well perfected ballistics identification methods and facilities, and great advancement has been made in methods and facilities for identification of animal bloodstains, hair, meat, etc. We are grateful that these facilities have been made available to us. I am sure it would be to the advantage of my state, and other states as well, if it were possible to positively identify any kind of animal bloodstain, hair or meat so that the evidence would be readily accepted by the courts.

## What Story

# Does Your Bagged Turkey Tell?\*

**T**HIS year Commission district game biologists and wildlife management students will man a selected group of game checking stations (see inside back cover for locations) west of the Blue Ridge Mountains. These men will be stationed there to examine wild turkeys (and deer) bagged during the coming open season. The information they hope to gather will include the sex, age and weight of each bird. However, if your bird is not checked by one of these men in the field, you still may be of direct assistance to your Game Commission by sending only two feathers, plus any other information taken from the turkey that you reported to a checking station not manned by a technically trained man.

For information about which two feathers you should send to the Commission, refer to the short item entitled, "Elementary, My Dear Watson," on page 9 of this issue.

Many hunters will naturally raise the question, "Why bother?" or, more naturally, "What's all this got to do with improving my turkey hunting?" The Commission doesn't set up checking stations to inconvenience the hunter. Nor do public-minded citizens who operate these stations fill out a card on each turkey killed just to have something to do. District game biologists and wildlife students do not examine your bird, and record all information about it, just to have something for their files. These men are accumulating facts about this largest of our game birds in order that your Commission may accumulate, analyze and evaluate facts, to see where we stand and what can be done in the



management of the wild turkey. Through the cooperation of every sportsman who kills a turkey, it is believed that future turkey hunting in Virginia may be benefitted.

Why does the Commission want to know how many turkeys are killed in each county of the state? Do you know of any business that does not take at least an annual inventory of what it has on hand? If so, it probably won't be in business for long. The Commission is your business! It measures your profits and losses in the form of game increases and decreases through these checking stations. No one can truthfully say how many turkeys we have in any one county, nor in the state as a whole. But most certainly the number of birds killed each year is an indication of whether the turkey population is increasing, decreasing or remaining static. When you fail to report the turkey or turkeys that you kill, the total kill for that county appears to decrease. A decreasing kill indicates a decreasing population. A decreasing population needs protection, and protection calls for shorter seasons and/or decreased bag limits. So, who loses? Not just the hunter who fails to report his kill, but all hunters.

Why does the Commission want to know the sex of the turkeys killed in each county? Admittedly, no one can say how many turkeys there are in any one county prior to the gunning season. Even if we know the exact number of turkeys killed during the open season, no one can tell how many birds remain as breeders for next year's crop.

However, if we know the number of gobblers and hens killed, from the reports obtained at the checking stations, we may assume that these birds are a sample of

\* This summarization submitted by R. M. McDowell, graduate student, Virginia Cooperative Wildlife Research Unit, V.P.I., Blacksburg.

the sex ratio remaining in a particular county. We may further assume that the survivors are in the same ratio of gobblers to hens. This is where knowing the ages of the birds killed comes into the picture.

What is the importance of knowing the age of each turkey killed in each county? There are two good reasons for wanting this information. The first has to do with the ratio of breeding birds that survive the hunting season. Wild turkey toms, unlike their domestic cousins, do not breed until they are two years old. Therefore, it is important to have some idea of the ages of the remaining gobblers. Fortunately, the wild turkey is a polygamous bird. One gobbler will mate with several hens. Hens will breed when they are only one year old. Again, assuming that the sex and age ratios of the birds that survive are similar to those of the birds killed, this information will provide a much clearer picture of breeding conditions in each county.

The ages of turkeys killed by hunters provide another important indicator of the well-being of the turkey population in each county. If we know, through the reports made at the checking stations and to the Richmond office of the Commission, how many old hens and how many young birds of both sexes are killed in each

county, then we may assume the productivity of the turkey population of that county.

Some hunters apparently are reluctant to check their kills at these checking stations because they feel that game management in general means decreased hunting, but they are wrong in this assumption. Nothing could be further from the truth. Game management calls for utilizing to the *fullest* the harvest, in the form of game shot. High populations and high productivity mean more shooting. Low populations or low productivity mean less shooting. It's as simple as that.

The best measures of both populations and productivity is, therefore, based on (1) the number of turkeys that you report to checking stations (2) the number of birds that district game biologists and wildlife students are able to examine in order to determine sexes and ages and (3) the number of birds whose breast and wing feathers you forward to the Richmond office.

Whether or not turkey management, and that means turkey hunting, can be improved in your county depends mainly upon your cooperation. Your information will enable the Commission to determine, logically and fairly, how much turkey hunting your county can support.

It's up to you.

## "Elementary, My Dear Watson"

**H**OW MANY times did the famous Mr. Sherlock Holmes baffle his friend, Dr. Watson, with those words, "Elementary, my dear Watson?" And yet, each time his seemingly miraculous deductions depended upon no crystal ball, but rather evolved from careful observation.

Your Game Commission cannot tell by seeing a man's tattooed arm that he has just returned from the Orient where he successfully bagged 329 tigers with a Luger pistol. Nor can we tell from the mud on a man's shoes

that he is the seventh son of an absconding bank teller from "Gobbler's Knob." Such deductions are left to our sleuthing friend.

But we can, however, with only two feathers from your wild turkey, tell you whether your prize was a gobbler or a hen, and whether the bird was hatched in 1953 or earlier. Believe that? If not, why not test us and see?

On the back cover of this issue, you will see how we can determine the sex of your turkey by the breast feathers, and how we can age it at the checking station. But not until a later issue will we reveal how, with just one feather, we can determine its age.

If you accept our challenge, here's what you do. Remove a breast feather (it must be a breast feather) from your turkey. Then cut the last five inches from the tip of the leading wing feather. This feather is the one farthest from the turkey's body (again, it must be this particular feather.) Now, place both these feathers in an envelope together with a slip of paper bearing your name, address, county in which the bird was killed, the date killed, and weight of bird (give weight only if you weighed the bird). Send to the Game Division, Commission of Game and Inland Fisheries, Richmond 13, Virginia.

It may take awhile to get to your letter, but we promise you that, if you send the proper feathers, we'll let you know the sex and age of your turkey.



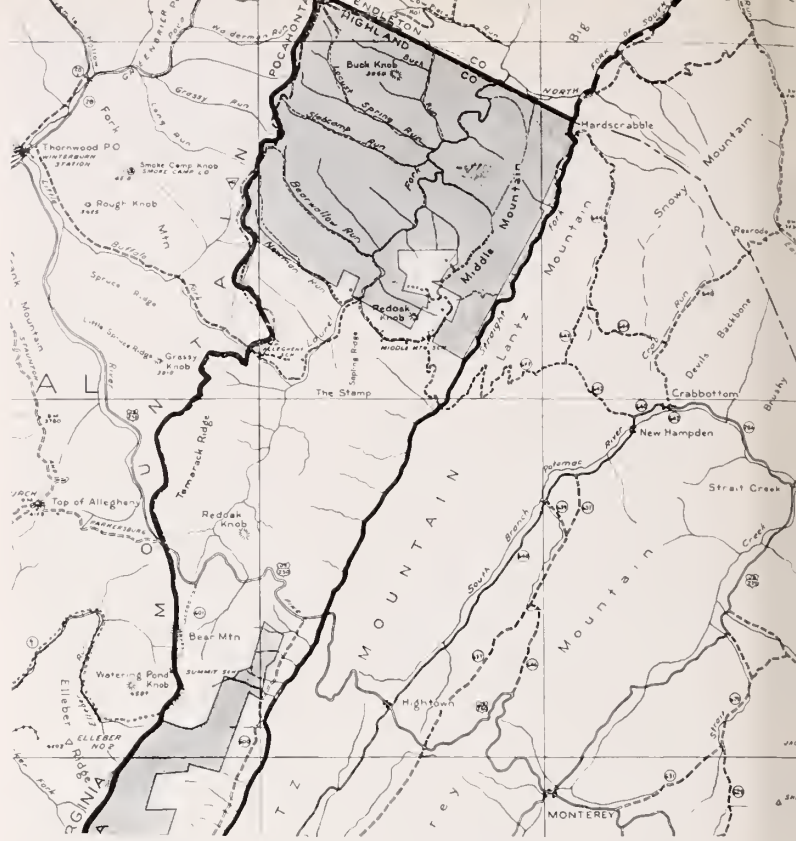
Breast feathers of a wild turkey—if the edge is black and smooth it's a gobbler; if brown, it's a hen.

# HEADWATERS OF THE POTOMAC—

*Wild, Rugged, Inaccessible Mecca for  
Outdoorsmen*

By SEDGWICK WATSON  
Assistant Ranger, Warm Springs Ranger District,  
George Washington National Forest

(Commission photos by Shomon)



**F**EW people believe and even fewer know that the majestic Potomac, America's most historic river and the dividing line between much of Virginia, Maryland and West Virginia, actually begins in the high mountainous country of northwestern Virginia—a country so rugged and inaccessible that it waxes at the heartstrings of brawny outdoorsmen. Probably one of the wildest areas of the east, outside Maine, this hunting-fishing paradise is almost entirely in national forest land.

The principal tributary of the Potomac is the North Fork of the South Branch of the Potomac, with Laurel Fork in Virginia's Highland County, forming the main headwaters. Just southeast of rugged Pendleton County, West Virginia, the twenty-five-mile square patch of northern hardwoods and conifers rivals anything else in the state. Several feeder streams, all trout brooks with native speckled trout, feed into the Laurel Fork Stream. The main feeders are Locust Spring Run, Slabcamp Run, Bearwallow Run and Newman Run, all easy flowing brooks with banks etched by deserted and overgrown railroad beds.

The Laurel Fork area, nearly all in national forest land (George Washington National Forest), was logged off—"clean-cut"—about the turn of the century and the old railroad grades are still quite visible, so hunters and anglers find them very convenient to travel.

To the hardy outdoorsman, few areas in Virginia or in the entire east afford the grandeur of scenery, the native trout fishing, the wildness of the Laurel Forks section, which is almost totally different geographically from the rest of the state. Accessible only by foot or horseback, the inner reaches of Laurel Fork itself is a true mecca for wildlife. Raccoons abound. Mink tracks

are everywhere. Beaver dams impound Laurel Fork itself in many places. Deer are so plentiful that, in sportsmen's language, the country is "lousy with white-tail". Local mountaineers say that the country is just too tough for most hunters and as a result the wilder, more remote sections are seldom hunted at all. Here grouse are plentiful; bobcats occasionally scream at night; and black bear prowl for beaver. On my last trip to the area with J. J. Shomon, editor of *Virginia Wildlife*, we saw a disturbed area on a ridge near Laurel Fork. Upon closer examination we surmised that a black bear had found a beaver dam, had torn the place apart for 10 yards, and had killed and devoured the beaver. Ravens and eagles occasionally are seen and the area is a haunt for timber rattlesnakes.

The five-mile by five-mile boxed area that constitutes Laurel Forks is Virginia's only known region to harbor the big varying hare or snowshoe rabbit. Several specimens have been reported from the section though none have been seen in several years. Laurel Forks was also known to have been a resort of the rare fisher and marten, furbearers long extinct in the state.

There are native speckled trout in most branches that feed into Laurel Fork stream, but they are shy and hard to catch and it requires a good fisherman to take them. When the waters are low, as they have been this past summer, they are heavily fed on by such predators as the great blue heron, mink and raccoon.

Probably one of the most fascinating features of this high mountain country is the vegetation. Here buffalo meadows, kept open by earlier burning and the grazing of bison, still are characterized by the original blue grass. So abundant was this favorite buffalo food that one entire mountain valley east of Monterey became

known as Blue Grass Valley. Interesting too is the fact that the town of Crab Bottom had its unpopular name changed to that of Blue Grass, in keeping with the lush growth of the area. The mountain meadows, 3000 to 4500 feet in elevation, are also marked by the growth of brake ferns and witchhobble typical of the more northern ostral zone of plant life.

Unlike most mountain sections of Virginia, Laurel Fork is characterized by a mixture of northern hardwood trees—black cherry, a predominant hardwood, sugar maple, yellow birch, black birch, basswood, and smaller trees and shrubs of a more northern elime. These are the trees that are so characteristic of the high mountain country in Pennsylvania, the Adirondacks and New England. Conifers too are striking and different: tamaracks, red spruce and balsam fir. Many chestnut trees, repeatedly killed by blight, are living in sprout form and some, three to four inches in diameter, were filled with burrs. A good deal of the country was cut over and burned, but is now coming back to the original climax type of forest.

Hunters or just plain sightseers, campers and hikers who are interested in getting to see this country have only to do two things. Prepare to hit the trail on foot and be willing to undergo the hardships of rugged mountain terrain. The only way really to see the area is to pack in, spend the night along Laurel Fork, and then hike back out the next day. The wilder, more inaccessible sections of Laurel Fork can only be reached by an overnight trip. It is just too much to go in one day and come out the same evening.

Those desiring to see the section might follow one of several routes. From Monterey, Virginia, U. S. 250 can be taken west to Thornwood, West Virginia. From there West Virginia No. 28 can be followed northeastward to the Forest Service motorway and thence to the



The only existing Adirondack shelter near Locust Spring on the northern tip of the county line of Pendleton and Highland counties.

only existing Adirondack shelter near Locust Spring on the northern tip of the county line of Pendleton and Highland counties.

After leaving Monterey it might be interesting to stop at the little junction of Hightown which forms the dividing line between the Potomac and James River watersheds. All the drainage to the north or right flows to the Potomac, while that to the left or south flows to the James. According to postmaster George G. Gum, Hightown is the highest post office in the state of Virginia.

Less than a mile south of Hightown is a small bubbling spring which gives rise to the main source of the Jackson River and hence the James. Westward from Hightown along U. S. 250 the interesting drainage system of the Potomac headwaters may be seen, with patches of spruce and fir interlaced with hemlocks and hardwoods. The North Fork of the South Branch of the Potomac, contrary to general belief, finds headwaters in Virginia on the south side of U. S. 250 in the Lantz Mountain section.

Another means of reaching Laurel Forks is to take the Little Buffalo Fork Forest Service motorway east from Thornwood. This can be followed to the headwaters of Locust Spring Run and to its junction with Newman Run. From here on down it is all hiking.

A third way of reaching the area is by Monterey northward to Blue Grass and thence along Route 644 to the mountain settlement of Hardscrabble. From Hardscrabble it is one and a half miles by foot along the North Fork of the South Branch of the Potomac to where Locust Fork comes through.

Best advice to anyone desiring to see this wild area is to check with officers of the United States Forest Service before entering the region. Both the main



Hightown, highest post office in the state and dividing line between the Potomac and James River watersheds.



Spruce, tamarack and balsam fir, trees characteristic of the north, dot the landscape.

office of the George Washington National Forest in Harrisonburg and the office of the forest ranger in the Warm Springs Ranger District, Hot Springs, are in a position to assist in directing sportsmen into the area.

Highland County, formed in 1847 from the counties of Bath and Pendleton (now West Virginia) gets its name from the prevailing high altitude of the region. The stream area section, though considerably lower than surrounding ranges, frequently has low night temperatures, often down to freezing in summer, though daytime temperatures are in keeping with the rest of the country. Much of the land in the county is too mountainous for cultivation, so many farms are devoted

to livestock raising—chiefly beef cattle, calves and sheep—and the bluegrass pastures are excellent. Highland is one of the few Virginia counties which produces maple syrup in quantity. The tourist industry has great possibilities, but has not yet been developed to any great extent, though there are some summer homes and sportsmen are attracted by good hunting and fishing. Monterey, the county seat and only incorporated town, with a population of 262, was originally called Highland, but was renamed in honor of General Zachary Taylor's Mexican War victory at Monterey. One of Virginia's most beautiful mountain counties, Highland has been nicknamed "Little Switzerland of America."



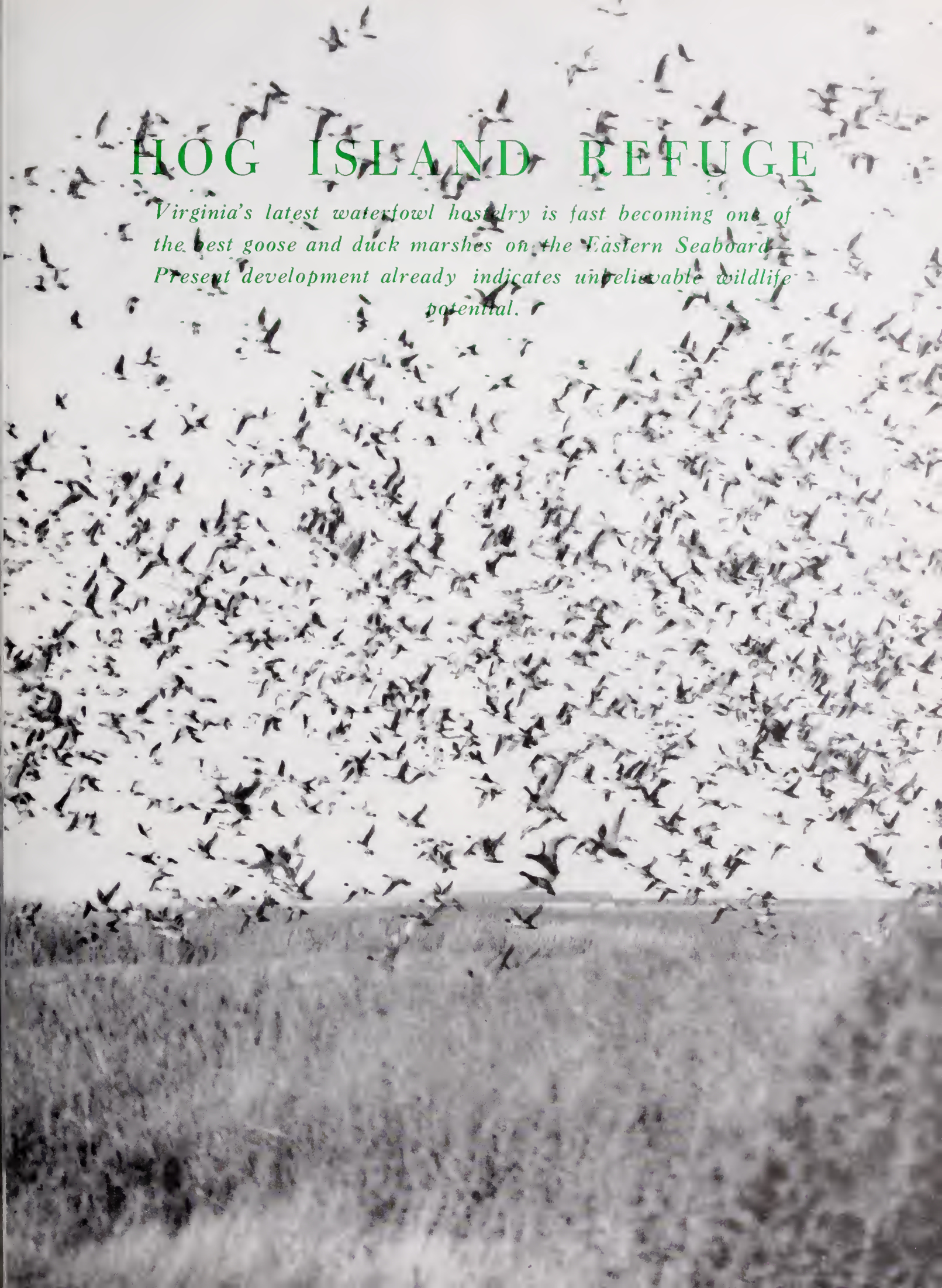
Small native brook trout abound where water is stored behind beaver dams.



Laurel Fork is fed by numbers of small feeder streams, and native speckled trout thrive.

# HOG ISLAND REFUGE

*Virginia's latest waterfowl hostelry is fast becoming one of the best goose and duck marshes on the Eastern Seaboard. Present development already indicates unbelievable wildlife potential.*





One of several pond areas at Hog Island. In winter months waterfowl find these protected waters much to their liking.



The new two-mile access road will facilitate development of the refuge. Until Commission purchase in 1951, the Island was practically inaccessible in wet weather. Road also serves as important dike between ponds.



John Bryant, left, refuge manager, and Charles Gilchrist, waterfowl biologist, constantly seek more and better food plants for the refuge.

## HOG REFUGE DEVELOPMENT WILL ME

SEVENTY miles east of Richmond on the historic James River lies Hog Island, a 2100-acre marshland where the early colonists from Jamestown, across the river, kept their hogs. After a dramatic history of Indian raids, plantation ownership, unsuccessful rice farming, and excellent sport shooting, the area came under Game Commission ownership as a waterfowl refuge in February 1951.

Always known as a good waterfowl marsh, the potential carrying capacity of the island in ducks and geese is unbelievable. Federal as well as state experts rate the area as one of the best goose and duck resting and feeding grounds on the entire Atlantic flyway. Charles Gilchrist, Commission biologist in charge of marsh development, estimates there were about 50 Canada



Undesirable areas are "bulldozed" off to allow for more suitable waterfowl areas. Dazer operator Thomas Lagon of Claremont gets his instructions from Gilchrist.



This area is being cleared of wax myrtle and other underbrush and will be planted to waterfowl food plants.



Important development project is keeping the island from eroding by wave action. Here new road is protected by 850-foot bulkhead on west side of island.



Pond construction and water level control by means of dikes, as shown here, will stabilize marsh waters, favor desirable plants for waterfowl.

## LAND

### A HIGH WILDLIFE POTENTIAL

geese using Hog Island in 1950, before development and management were begun. In 1951, after purchase and some feed ground development, 500 geese came to use the area. In 1952 the number rose to 1,500, and, in the late winter months of the year—4,000!

What Hog Island will mean to waterfowl and to waterfowl shooting generally up and down the James River remains yet to be seen. Those in authority claim 10,000 geese and 50,000 ducks can be expected at Hog Island when present feeding areas, water controls, and marsh management measures are fully complete.

Here in pictures is the story of the development work going on and what it will mean to outdoor-loving Virginians.

(Pictures continued on next page.)



Common Bullrush, or *SCIRPUS ROBUSTUS*, is encouraged. It is an excellent natural duck and muskrat food.



Cafeteria of wildlife! This is one of several fields planted to lush combine milo. Quail, deer and geese feed here heavily!



Between 5,000 and 10,000 Canada Geese are expected to use the grain and clover fields this winter.

Commission-owned power equipment facilitates field work. Driver Jesse King prepares to plow field for fall seeding.



Biologist Gilchrist shows what can be done with controlled and raised water levels. Tall plant is duck millet, favorite of mallards; low plant is smartweed, another good duck food.



Marsh has a heavy population of muskrats, many raccoon, some mink and a few otter. Fur harvest meant a sizeable income to Commission last year. Catch was 2,100 muskrats, 54 'coon, 3 otter and 4 mink.



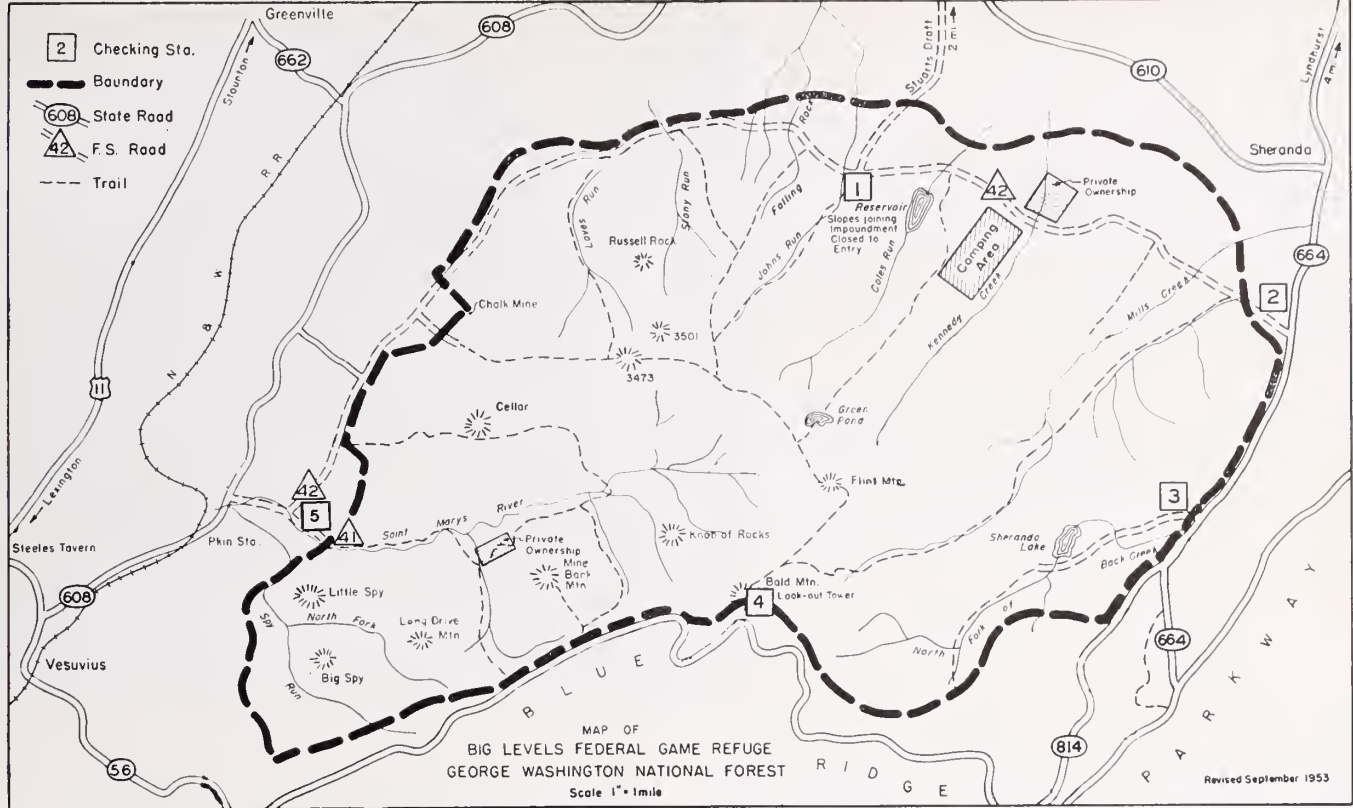
Refuge manager John Bryant inspects one of the many canals on the refuge. Some of these watercourses were hand dug in the early days when board and wages amounted to 10 cents a day.

## EXPANSION OF GAME COMMISSION PROGRAMS SOUGHT

The budget which the Game Commission presented to the Governor's Budget Committee last September calls for the continuation of the expansion of fisheries, game and education programs. It will be recalled that at the close of World War II these programs were at a low ebb due to the lack of adequate qualified personnel. Over a period of years since 1946 qualified personnel have been added to the Commission staff

so that, with the new budget, if approved, it will near the peak of expansion until additional revenue is available.

According to wildlife authorities, game and fish populations in Virginia are on the increase which, these authorities say, is proof of the worthwhileness of the Commission's wildlife management program which it launched on July 1, 1948.



## BIG LEVELS OPEN TO BOW HUNTING

**T**HE Big Levels Wildlife Refuge, located in Augusta County in the midst of the George Washington National Forest, will again throw open its 30,000 acres of mountain land and sandstone ridges to bow hunting enthusiasts for an experimental hunt this November 9 through November 14, just two days before the general hunting season opens in counties west of the Blue Ridge Mountains and in the national forest areas.

The bow and arrow hunting experiment on the Big Levels Refuge is a cooperative project between the U. S. Forest Service and the Virginia Commission of Game and Inland Fisheries. Big Levels is located approximately 10 miles south of Waynesboro in the Blue Ridge Mountains.

The U. S. Forest Service has announced that the area will be open, beginning one half hour before sunrise on November 9 and will close one half hour after sunset on November 14.

Prospects for bow hunters bringing their sights to bear on some form of game are good, when it is considered that every type of game in the area, with the exception of wild turkey, will be legal during the hunt.

Deer of the hunter's choice (either sex), bear, and all other game except the turkey may be hunted with bow and arrow only on Big Levels for the six straight days. The daily bag limits, possession limits, license requirements, and all other regulations will conform to those which apply to Augusta County and the national forests. All kills apply to the state legal bag limit.

Each hunter bagging any type of game must make a daily report to the federal game warden, who will be at the camping area on the Refuge between the hours of 12 o'clock noon and 1 p.m. and between 5:00 p.m.

and 6 p.m. each day.

During the hunt, as is the case statewide at all times in Virginia, the cross-bow is illegal as are poisoned arrows. Also, the use of, or possession of, barbed arrows is prohibited. The minimum width of sharpened broad head arrows shall be not less than seven-eighths of an inch. The minimum bow weight (pull) for women shall be 35 pounds pressure, whereas for men the minimum weight shall be 45 pounds pressure.

The general hunting regulations for Augusta County will apply during the bow hunt, just as they do during the open gunning season. These regulations are that the turkey season in Big Levels Refuge for 1953 is *closed*. All hunters must have a license valid in Augusta County and on national forest lands.

During the open season on the Refuge, all roads in the area will be open. All those caught in violation of the laws will be tried in federal court. Dogs are not allowed on the Big Levels Refuge during the bow and arrow season and will not be allowed on the area except during the week of November 23.

During the early bow and arrow hunting season last year, which took place on the Refuge from November 10 through the 15th, only two of the 60 hunters taking part succeeded in bagging a deer. The lucky hunters were R. M. Bragg, of Purcellville, and Dr. McKelden Smith, of Staunton. The Commission and the U. S. Forest Service are hoping that even more archers will take advantage of this revived type of sport hunting this year and that the list of lucky hunters will be extended.

The North River Closed Wildlife Area, also located in Augusta County, will have its boundaries conspicuously posted on the ground in order that no hunters will accidentally trespass upon it.

# Virginia's No. 1 Furbearer

By

JAMES W. ENGLE, JR.,

District Game Technician



(Commission photo by Kesteloo)

THE FUR INDUSTRY is sometimes referred to as a "skin game", to be taken several different ways.

It can be as wonderful a business as the beautiful furs that are handled. The reputation of the fur buyer or furrier is the best insurance of a fair and honest transaction. The fur industry was responsible for the opening up of a large part of our country, and several fortunes were made in the process.

Captain John Smith mentioned the muskrat in his early writings of Virginia. Apparently the muskrat did not come into its present importance as a furbearer until the more valuable furbearers, beaver, otter, etc., had been trapped out or reduced to very low numbers. During the fur boom following World War I, marshes in eastern Virginia purchased at the turn of the century for \$0.50 to \$0.75 per acre produced an income of \$5.00 to \$25.00 per acre. These marshes today are producing \$3.00 to \$15.00 per acre, according to M. A. Byrd in his unpublished thesis on the economic importance of the muskrat in Virginia (Blacksburg, 1951.)

According to our mammalogists, we have two different sub-species of muskrat in Virginia. Under these sub-species we have several color phases. Our sub-species are the Virginia muskrat, *Ondatra zibethica macrodon*, and the Common muskrat, *Ondatra zibethica zibethica*. The Common muskrat occurs in the western part of the state, and while worth slightly more per skin, the Virginia muskrat occurs so much more abundantly that its total value greatly exceeds that of its western brother. The "black rats" of the tidewater marshes are a color phase of the Virginia muskrat. The Common muskrats from the mountains are a little darker in color and have a better quality fur than their tidewater brothers.

Virginia ranks 13th in the Nation in its annual muskrat production. According to fur dealer reports, Virginia's take of muskrats is approximately 170,000.

The quantity of muskrats caught along the small streams in the western part of our state is surprising. The number of muskrats produced on the streams naturally varies with the streams. The best streams

are slow moving, steep banked, have clay or loam soil, and are covered with vegetation on the sides of the banks. Swift rocky mountain streams are entirely unsuited for muskrat production. Large rivers apparently do not have as high muskrat populations as small streams. Undoubtedly the great fluctuations in river levels are the cause of this, for flood stages drive the muskrats out of their homes and drown the young.

While trapping on some of the big marshes is a full time job, 60% of the trappers in the mountainous sections are school boys. Byrd found that the income per unit effort (hours trapping to muskrats caught) on streams in the mountains was very close to that of the marshes of eastern Virginia. The difference being, men trap the marshes as a full days work while 60% of the trappers in the mountains are school boys.

The total value of muskrats on some of the large marshes (800 to 1500 acres) taken in one year is equal to the total value of the fur crop in a western county, two to five thousand dollars a season. The variation of \$3,000 being due to the value of long-haired furs. This year long hairs were increasing in value and short hairs, decreasing. An indication of the yearly variation of the value of muskrat pelts is shown by the following average prices: 1949—\$2.10; 1950—\$1.70; 1951—\$2.75; 1952—\$1.65; and 1953—\$1.25.

Most streams have approximately 60% of the muskrats harvested each year. This is not too severe a harvest. When the harvest approaches 75% of the population, trapping is too severe. The law of supply and demand generally takes care of this. As the success falls off, the trappers quit and enough brood stock is left for the next year. There is a spring and a fall dispersal movement in the muskrat population. As a result of this, heavily trapped areas are repopulated by lightly trapped areas. During these movements they will travel considerable distances overland and often take up house-keeping in ponds. This writer once caught a muskrat living in a groundhog hole under a barn, one-half mile from the closest water. Undoubtedly he was in the process of traveling to other parts.

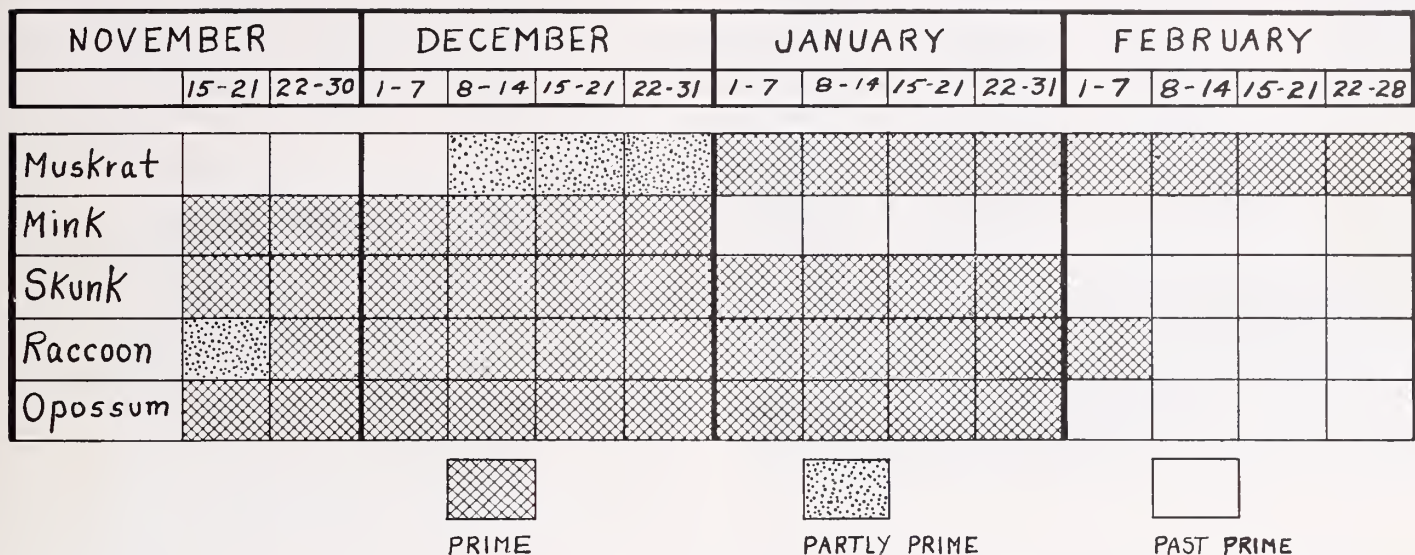


Chart showing the approximate time at which pelts of different animals become prime in Montgomery County, Virginia, based on the opinion of several fur dealers who have bought furs in this section for many years. (Byrd 1951)

The gestation period of the muskrat fluctuates considerably, but normally is of 28-30 days duration, according to P. L. Errington in the *Journal of Mammalogy* (1937, 18: 479-500). Litters average three to six young, with two litters a year as a general rule. However, it is not unusual to have three or four litters and some of the southern states have reports of breeding the year around. Some trappers in this state report catching pregnant and nursing females during the legal trapping season which closes on March 15.

Predators on muskrats include mink, raccoon, marsh hawk, bobcat, water moccasin and some fish. The raccoon has become a very severe predator on muskrats in eastern Virginia and stopped some trappers from trapping. In the mountains the mink is probably the main predator. However the mink is our second most important furbearer, and a large number of them is

caught by persons trapping for muskrats. With the mink season opening on December 15 and the muskrat season opening on January 1, a large number of muskrats are caught before the season opens.

Sub-adult muskrats weigh approximately two pounds and adult muskrats, two and a half pounds. Occasionally, an adult of two and three quarters pounds will be found, with males a little larger than females. Also sub-adults can be distinguished from adults by the primeness pattern on the hide.

"Primeness is primarily a phenomenon of hair pigmentation and not skin condition as is commonly supposed. In the summer and early fall, each individual hair on the muskrat's body has many granules of a dark pigment, melanin, in its roots, giving the skin side of the unprime animal a dark appearance. As the season progresses toward winter, the granules move from the base toward the tip of the hair. The skin side of the prime pelt will thus have a pinkish white color, rather than dark areas which are characteristic of unprime felts." (C. K. Gunn, *Phenomena of primeness*, Canadian Journal of Research, 6(4): 387-397)

Weather and stream fluctuations greatly affect trapping success. Best results of trapping are obtained on nights when the temperature is between 32 and 45 degrees, according to M. A. Byrd. In cold weather less muskrats are caught and even warmer nights are not too good. Fluctuating stream levels ruin good trap sets by either leaving them out of water or covering them too deep. These adverse conditions help insure sufficient breeding stock being left on the streams, thus furnishing boys with an opportunity to make spending money and marsh owners with a yearly income as a harvestable crop of our wildlife resource.

A typical muskrat stream found running through many western Virginia farmlands.

Photo by H. S. Mosby





# The Farmer Holds Key To Better Hunting

By HENRY P. DAVIS\*

(Commission photo by Kesteloo)

THE HUNTING possibilities of the average sportsman lie in the hollow of the farmer's calloused hand. It is upon his land that good or poor hunting is to be found, and for this reason he holds the key to good hunting in his pocket.

Farmer-sportsman relations have been the subject of many a lengthy discussion in conservation and sportsmen's meetings for a long period of years, but the subject would disappear from the agenda if only the individual sportsman would do something about it.

The sooner the individual sportsman gets out of the nodding acquaintance category and places himself on an all-year-round friendship basis with the farmer, the sooner he will enjoy better hunting. The farmer is the keeper of the key to good hunting. In fact, he holds the key to any hunting at all. True, all wild game belongs to the state, but the control of most of its habitat is vested in the owner or tenant of the land. The farmer can lock the door to all hunting or he can, as he usually does, be exceedingly generous with his hospitality.

There is an easy approach to the use of the farmer's magic key. This is simply through the use of common courtesy. The farmer is a busy and peace-loving man. It is no pleasure for him to stop in the midst of his work and force a trespassing hunting party to retire from his land. More often than not he suffers the insult . . . for that is just what trespass really is . . . in silence rather than have any unpleasantness. But he doesn't forget. He knows his rights and soon 'No Hunting' signs appear on the borders of his land.

The farmer likes friendly, courteous company. He resents being 'talked-down-to' by 'big shots' from the city who have very little knowledge of his problems and care nothing about them. He'll generally meet friendly overtures more than half-way. But he'll stand just so much high-hatting and then . . . 'Click', the key is turned in the lock of hunting privileges and Mr. Discourteous finds himself looking for other hunting grounds.

The matter of making friends with the farmer is an easy and pleasant undertaking. All you have to do is to practice the code of courtesy all of us have been taught anyway.

But to be more specific, I have outlined a few little maxims that might be called the Ten Commandments of Country Courtesy. It's just as easy to obey them as it is to violate them. They'll please the farmer mightily and after awhile they'll become a natural, effortless part of your conduct afield. They contain the 'Open, Sesame' to the farmer's fields and coverts . . . and to his open-handed hospitality. Here they are:

1. Always drive in to the farmer's yard and *ask permission to hunt*.
2. Hunt only in the areas he designates. Never go on ground he wishes to keep inviolate. Stay away from his stock.
3. Respect his fences. If necessary to climb them, climb over by post, closing them behind you. Always replace lowered bars.
4. Never shoot near houses, barns or livestock.
5. Leave his fruit and other crops alone. If you want some, buy it from him.
6. Go around fields where people are working, or pastures where livestock is grazing. Do not walk on seeded ground. Don't walk through standing grain.
7. Shoot crows and predators that do damage to his crops and livestock.
8. **SHARE YOUR GAME WITH HIM.**
9. On your next trip, bring his wife or children some little gift or token of friendship.
10. After you've become well acquainted, suggest a planting program to better game habitat, offering to finance it or help him with it, thereby showing genuine interest in his affairs.

These are simple little rules of common courtesy that any sportsman can practice to the benefit and pleasure of all concerned. They are really keys to the key to better hunting.

\* Mr. Davis is public relations manager, Remington Arms Co., Inc.

# WHY REPORT YOUR DEER KILL

By STUART P. DAVEY

*Leader, Deer Studies*

**W**ERE you among the nearly 11,000 hunters who reported the taking of a deer in Virginia last fall? Whether your luck held out or not, you will be glad to know that your Commission of Game and Inland Fisheries has enlarged the work aimed at better management of your deer herds. The need for this has come about because of a gigantic increase in deer and deer hunting in the Old Dominion just in the past 10 years. A successful restocking of deer in those counties west of the Blue Ridge and the spread of the deer on the eastern ranges have resulted in deer kills climbing since 1947 from 4,000 to 11,000.

This kill increase, of course, was the result of more deer and more hunters too. In 1946, 150,000 state and county hunting licenses were sold and the same year saw about 33,000 big game stamps being issued. By 1951, however, these sales had jumped to totals of 320,000 licenses and 52,000 stamps. Unfortunately, we don't know at present how many people hunt deer, but from the records of some of the western counties, the total must be over 100,000—and that, you will agree, is a lot of public interest in deer. Add to this number the thousands of citizens who enjoy having deer around and the other thousands who benefit from the tourist and hunter interest and you have some idea of just how important the deer resource is to the people of Virginia.

The management of a living resource, such as deer, presents a complex problem. It is for this very reason that a statewide study has been undertaken. What are the aims of our deer management? Your Commission wants to support in Virginia the maximum number of

deer that will be compatible with the other land uses on the deer ranges. This means that they want to give the hunters of Virginia a maximum amount of recreation. It means, too, that they want to give the public at large a chance to see and enjoy those deer. However, it also means that the deer must not be permitted to increase to a point where they destroy important forest growth or become destructive to agricultural crops. It means, in brief, that only in a few cases can an area be devoted to the production of deer alone.

And what are the controls for this population growth? The reduction of numbers by hunting is the only logical step. It must be remembered here, too, that once a deer herd is at a high level it cannot be controlled by shooting bucks alone. The "buck law" gives us our deer herd—the "any deer" seasons control it. Our eastern counties have found this measure necessary many times and our western counties have also reached that point in several situations.

Game biologists will be working twelve months of the year gathering facts needed in this management. We are finding out just where the deer are, how many we have and also what shape they are in. Your game wardens are keeping a record of the bucks, does and fawns they see and are reporting the numbers of deer killed annually by accidents or other means. The whole field force is submitting needed facts. During the season on deer, you, the hunter, can be the most important contributor to this fact finding. Through the use of special checking stations, we hope to handle many deer. It is only in this handling that we can learn such things as weights and antler development—which are good indicators of how good the food supply is and also shows where the best deer are being produced. From the age of the deer we can find how the hunting pressures are affecting them, how long the average deer is living and just how many deer are dying each year from all causes. From the reproductive tract of the doe, we can determine what age classes are producing the most fawns and also whether the food supply is permitting normal reproduction. All of these things can be learned only by handling your deer.

Your Commission and its field force are determined to manage the deer resource of Virginia in such a way as to give maximum recreation to the greatest number of its citizens and yet do this in a manner that will keep their numbers compatible with the other recreational, agricultural and forest uses on their range. The job is complex and the resource dynamic. For these very reasons, every year presents a different picture and will, therefore, call for different management steps and harvesting methods. If you get your deer near one of the special check stations this fall, help us to help you by bringing it to that station.

(Commission photo by Kesteloo)



# CONSERVATION—Practical or Theoretical

By

DR. FRANKLIN A. TYLER\*

**S**PLENDID articles in recent issues of *Virginia Wildlife* on conservation certainly stimulate thought.

One cannot be unmindful of the game and fish "then" and "now" without taking cognizance of the fact that practical application of wildlife studies has been indeed effective. It would be splendid if all thinking outdoor people followed conservation a step further and each regarded this question as a personal issue.

We can recall a number of incidents that reflect little credit on so-called sportsmen. Some might excuse Cody (Buffalo Bill) for bragging about killing two dozen bison in a morning hunt and taking only the tongues! But his boast of intercepting a concentration of wild turkeys while camping on a river island was quite inexcusable. His party killed a dozen which they needed for food and then, finding the turkeys exhausted from a long flight, lit into them with sticks and killed over one hundred and fifty. They left them lying where they fell and Cody thought it was wonderful sport. Another frontier sport described as an often repeated and pleasing stunt was that of creeping out of a plains fort and trying to see how many bullets he could stick into a grazing buffalo before it could get out of range. He found it most amusing.

Contrast that approach with the extreme care the Indians used in their contacts with buffalo and other game. They were most meticulous in their technique of hunting buffalo or waterfowl and it paid off in furnishing an abundant year round supply. True conservationists.

To come closer home and a personal observation, every year as a small boy on the way to school in Roanoke after holidays in Powhatan, we could observe hunting along the way. Once while the narrow gauge train waited at the Sunnyside station, we saw from the

coach window dogs pointing. On the rise, two hunters with pumps dropped seven quail and the rest flew along a ditch bank. Methodically they were flushed, one by one, to the last bird and I did not observe a miss. My dad turned to me and said: "Son, we have seen the best of bird hunting—but these hogs killed every bird in that covey. Hunting cannot survive such tactics." Twenty years later one of the hunters complained bitterly that hunting birds was not worthwhile any more, for little game was ever found in the fields.

It is not possible to evaluate the exact potential of an ocean, bay, or inlet of salt water, but nature must be prodigal indeed. I used to wonder when a boat would come into a beach, occupants disembark, pay the boatman, and then dump hundreds of undersize spot, croaker, and occasional small trout. Only a few of the larger fish would be picked up. But the fishermen would brag about the number boated and that seemed the main idea. A very prominent Richmond merchant, now deceased, owned a 35 foot cruiser and, describing one of his week-end fishing trips on the Rappahannock, boasted of a catch of 813 spot, croaker and trout. When some one asked how many of the fish could be used, he explained that it was wonderful sport but the fish were left on the wharf. He didn't care for fish.

Many similar incidents might be recorded, all illustrating faulty thinking.

The Izaak Waltonians and other organization people are doing a splendid work in attempting to mold public opinion toward saving our outdoor heritage, for such it is, and they also supplement the efforts of conservation publications.

Conservation, then, is more than a word; it should be a philosophy of life for all of us.

\* Dr. Tyler is an oral surgeon and outdoor enthusiast from Richmond Virginia.



"GREAT blind you got here Ed. They can't see us and we can't see them!"



"Ducks, woodchucks, rabbits, quail, deer, bear or moose— but ol' spot is best on grasshoppers and bugs!"

# CONSERVATIONGRAM

Late Wildlife News . . . At A Glance

GAME COMMISSION POLICY ON LICENSES. I. T. Quinn, executive director of the Commission of Game and Inland Fisheries, has sent a letter to game wardens of the State informing them that it is the fixed policy of the Commission that they receive no money from any person or source for the purchase of hunting, fishing or trapping licenses. The bond covering the enforcement staff does not include the handling of any person's money.

COMMISSION PROGRAM AT STATE FAIR. For the fourth consecutive year the Game Commission had an attractive educational exhibit at the Atlantic Rural Exposition in Richmond, a forty-foot display featuring the state's wildlife program. "The Keys to More Wildlife: Its Protection, Management, Conservation and Education" was this year's theme. Special Services Officer William C. Kellner was in charge, assisted by other Commission personnel, local game wardens and conservation officers.

BEST DOVE SEASON IN YEARS. According to authorities of the State Game Commission, there have been more mourning doves in Virginia and sportsmen enjoyed the finest sport in dove shooting in years during the first half of the season which closed September 30. Indications were that the good dove hunting would continue during the second half of the season, October 17-31.

INCREASING DEMAND FOR PULPWOOD. Need for stimulating increased interest in wise woodland management is emphasized by the United States rate of consumption of paper and paper products which had reached 396 pounds per person last year. Assuming a normal population increase of 220,000 a month, we will require 50,000 extra tons of paper per month next year. Just to maintain the present per capita consumption, without allowing for new uses, will require at least 75,000 extra cords of pulpwood each month.

ARMORED VEST FOR HUNTERS. The jeopardy in which hunters place each other during the open season is accentuated by the manufacture of a new armored vest by a Philadelphia concern which describes its safety suit as one in which "Protective plates are laminated of fiber glass and other plastic components, set in individual pockets so that there are no spaces for penetration. Many layers of ballistic nylon protect the shoulders and zipper closure. Actual ballistic tests have proven how superbly the hunting vest resists bullets."

WILD MEAT AIDS STATE PARK. South Dakota's Custer State Park is making more money from wild meat than from tourists. The park slaughters surplus buffalo and elk and sells the meat at a cut-rate price of about 40 cents a pound. During the last fiscal year, the meat brought in \$89,666, nearly \$30,000 more than the leases of three tourist resorts.

EAVESDROPPING ON WILDLIFE. Dr. Kenneth Gordon, Oregon State College zoologist, uses special sound equipment to record animal sounds that cannot be detected by the unaided human ear. He expects that this mechanical eavesdropping on wildlife will discover many new facets of animal communication.

ALASKAN FUR SEAL INDUSTRY BACK TO NORMAL. Although threatened with extinction at one time because of indiscriminate killing at sea, the seal herd of Alaska's Pribilof Islands has been restored to its original level of abundance. Secretary of the Interior Douglas McKay has announced that a total of 66,378 fur seal skins, 2508 more than last year, were obtained this season in Government-administered sealing operations.



### **Game Warden School A Great Success**

The ninth annual summer short course for the enforcement staff was the most successful in the history of the Game Commission in the opinion of those conducting and attending the session, August 16-20, at Virginia Polytechnic Institute, Blacksburg, Virginia.

Among the guests on the opening day were Judge T. L. Hutton of the 23rd Judicial District, Abingdon, and Judge Cecil E. Wright, Trial Justice of Craig County, both of whom spoke to the school on handling cases in court, and Dr. I. D. Wilson, Head of the Department of Biology at V.P.I., who gave an address on public relations.

Walter Gresh, Assistant Regional Director, United States Fish and Wildlife Service, Atlanta, Georgia, and I. T. Quinn, Executive Director of the Virginia Commission of Game and Inland Fisheries, both addressed the group.

The courses given emphasized the collection of evidence and proper presentation of cases to the courts. The activating of the Commission program in all counties by game wardens and conservation officials was stressed during the school.



Webb Midyette, law enforcement chief, addresses his staff at V.P.I.

### **J. B. West Passes**

John Beamer West, retired supervising game warden for the Commission of Game and Inland Fisheries, died last September 12 in a Richmond hospital.

Mr. West had been on the Commission staff for 24 years before his retirement in 1952. He was a member of Amelia Baptist Church and Amelia Lodge No. 101, AF & AM.

He is survived by his wife, Mrs. Mary Akers West; two sons, Akers Martin West, of Roanoke, and John Terry West, of Richmond; two daughters, Mrs. E. C. Lederhose, of Richmond, and Mrs. T. F. Campbell, of Hampton; one brother, William A. West, of Patrick County; two sisters, Mrs. Jerry Wood and Mrs. T. F. Boyd, both of Meadows of Dan, and two grandchildren.

Mr. West had served long and



J. B. West

well as a servant of the people and furtherance of the cause of conservation in Virginia. Although he is gone, his work and memory will live on to guide those of us who are carrying on the responsibilities of conservation work in the state.

### **Dave Robertson Honored By Game Wardens**

The Virginia Game Warden Association singled out Dave Robert-

son, Norfolk city game warden, for special honors during its summer school meeting at V.P.I., and at the September 4 Commission meeting in Richmond, Executive Director I. T. Quinn presented him with a beautiful seventeen-jewel wrist watch, on behalf of the Association, for having served as its president for the last five years.

### **Game Technicians Meet at Hog Island**

A general meeting of technical personnel working on Pittman-Robertson projects was held at Hog Island during the summer. During the two-day meeting, they inspected the work at Hog Island Waterfowl Refuge and continued their trip to look over progress being made in the Back Bay Waterfowl Refuge also.

The main objective of these general meetings is to familiarize personnel with waterfowl and marsh development in the two refuges, to develop plans and procedures, to evaluate information from checking stations and to decide who will man what stations during the next hunting season.

Game technicians at Hog Island: bottom row, left to right, C. F. Phelps, W. P. Blackwell, C. H. Perry, H. G. Tuttle, R. H. Cross, J. E. Thornton; top row, left to right, S. P. Davey, C. H. Shaffer, J. E. Bryant, J. W. Engle, Jr., J. C. Harvey, G. A. Gehrken, C. P. Gilchrist. E. V. Richards also attended the meeting, but was not present for the picture.





## BENNETT NAMED PENNSYLVANIA GAME HEAD

Dr. Logan J. Bennett, who recently resigned his position as chief of the Fish and Wildlife Service's branch of wildlife research, was appointed executive director of the Pennsylvania Game Commission on October 1st. Dr. Bennett replaces Thomas D. Frye, who retired recently.

Dr. Bennett has been chief of the Service's branch of wildlife research since September 1948. His federal service dates from July 1935 when he was appointed junior refuge manager on the Trempealeau National Wildlife Refuge in Wisconsin.

Dr. Bennett is the author of numerous scientific papers and popular articles on wildlife management subjects. In addition, he is the author of two books, *The Blue-Winged Teal*, and *Training Grouse and Woodcock Dogs*.

## THE SQUIRREL LOST THE BOUT

Nature is not always as serene as people picture her. Sometimes she is brutal and the supreme law is "survival of the fittest."

Such was the case in an encounter between a snake and a squirrel along the Virginia banks of the Potomac last fall, as observed by 20 Boy Scouts from Troop 629, Arlington, and their leader, Colonel LeRoy Bartlett, Jr., USAF. As the group watched in awe, the big snake struck and coiled around a full grown gray squirrel. As it was happening, Heyward Brad-dock of Arlington snapped 19 pictures in 25 minutes, the time it took to devour the hapless squirrel. Apparently feeling no bad effects, the satisfied snake crawled under a shady ledge and took a nap.

## DR. PUGH RESIGNS FROM THE COMMISSION

Hard-working and always popular, Dr. William T. Pugh of Lynnhburg

resigned from the Game Commission recently because of the pressure of other duties. Faithful commissioner for the sixth district since 1947, his many friends will miss him greatly. At the meeting of the Commission, Dr. Pugh was honored with the presentation of a handsome silver cigarette box.

Making the presentation for the Commission is T. G., "Uncle Tom", Herring of Dayton, Va. Others looking on are Charles D. Anderson, Suffolk, T. D. Watkins, Midlothian, Miss Evelyn Paris, assistant executive director, and Commission Secretary Dr. E. C. Nettles of Wakefield. Dr. Pugh.



Mr. Herring, William C. Gloth of Matthews, and I. T. Quinn, executive director.

## FIFTH ANNUAL FEDERAL "DUCK STAMP" DESIGN CONTEST

The fifth annual contest to select the design for the Federal "duck stamp" for 1954-5 has been announced by Director John L. Farley of the United States Fish and Wildlife Service. The contest is open to all interested artists, amateur or professional and complete details are contained in a leaflet which is available from the Fish and Wildlife Service, Division of Information, Washington 25, D. C. Entries submitted in accordance with contest rules must reach the Service's headquarters office in

Washington on or before Monday, January 11, 1954.

The Migratory Bird Hunting Stamp—better known as the "duck stamp"—first went on sale in 1934. A new stamp is issued each year by the Post Office Department. It goes on sale July 1 and expires on the following June 30. Nearly twice the size of a special delivery stamp, it sells for \$2. Everyone over sixteen who hunts migratory waterfowl is required to have one of these stamps in his possession, in addition to the State hunting license.

## VIRGINIA RESOURCE-USE EDUCATION COUNCIL MEETING

The summer meeting of the Virginia Resource-Use Education Council was held at Sherando Lake Recreational Area, George Washington National Forest, on Thursday, August 27, 1953. Chairman J. J. Shomon called the business session to order at 9:45 a.m. In the absence of Secretary Robert Bowers, John Gwathmey was chosen to act as temporary secretary.

Those present were Messrs. A. R. Green, Edwin Holm, A. L. Wingo, John H. Gwathmey, George Zehmer, Henry S. Mosby, R. S. Bailey, A. P. Bursley, A. H. Anderson, T. V. Downing, and Chairman Shomon.

Committee chairmen were asked

A. H. Anderson discusses the benefits of national forests to Virginia.



to give reports on various activities. A. H. Anderson reported on the booklet committee. A. L. Wingo for the teacher training committee, and Dr. Zehmer, in the absence of Mr. DeHart, on the workshop committee.

Chairman Shomon reviewed the work in resource-use of the Virginia Academy of Science and called upon Wingo to tell of the symposium on resource-use held at the Academy meeting at Lexington last May. It was declared that the panel was highly constructive. The chairman then spoke of the Academy's committee meeting before the State Board of Education held in Richmond in the Spring, at which the Council was represented, and he reviewed the work leading up to this appearance before the State Board of Education. Edwin Holm of the Division of Planning and Economic Development then explained the work of his agency and how its services might benefit the Council.

#### OLD COUNTY DOG TAG UNCOVERED

The two little boys of Dr. N. H. Wooding of Halifax dug up this 1912-13 Halifax County dog tag in the back yard. The tag is the size of a half dollar, one and a quarter inches in diameter, stamped on one side only. Dog tags such as this were issued by a few Virginia counties before licensing became statewide. Eventually, the function was taken over by the Game Commission.



1912-3 dog tag discovered by the two little sons of Dr. N. H. Wooding of Halifax. The tag, an inch and a quarter in diameter, is stamped only on one side.

#### IWLA HOLDS ANNUAL CONVENTION AT LYNCHBURG

The Lynchburg chapter of the Izaak Walton League of America played host to the annual meeting of the Virginia Division of the IWLA at the Virginian Hotel in Lynchburg on September 19-20. Principal speakers at the business session were Dr. Henry S. Mosby of the Virginia Cooperative Wildlife Research Unit at Blacksburg, who spoke on wildlife resources, and Ross Walker, member of the State Water Control Board, who brought the group up to date on the state's pollution abatement program.



Incoming officers for the Virginia Division IWLA: left to right, Ernest J. Foldie, president; Reynolds Hornsberger, first vice president; Paul O. Peters, president; John Monaghan, treasurer; Arthur Guille, recording secretary; and Robert St. Clair, second vice president.

There was no substantial change in the elected officers for the coming year except that Reynolds Hornsberger of Arlington was elected first vice president and Robert St. Clair of Radford, second vice president. Paul O. Peters, Ernest J. Foldie, Arthur Guille and John Monaghan were re-elected president, secretary, recording secretary, and treasurer.

#### SIXTH NORTH AMERICAN BIG GAME COMPETITION

The Boone and Crockett Club has announced the Sixth North American Big Game Competition. Tabulations of previous awards and charts for entering your trophy or trophies may be obtained by writing to Mrs. Gracel Fitz, Secretary, 5 Tudor City Place, New York 17, N. Y.

Trophies taken during any year are eligible if they have not been entered

in any of the five previous competitions and are not listed in any edition of *Records of North American Big Game*. Any new entry received before December 31st will be considered for the 1953 competition.

#### FISHING RODEO AT TIMBERVILLE

The fourth annual Fishing Rodeo for boys and girls under 16 at Cold Spring Pond was the biggest and best yet. There were 175 participants, 27 of whom caught 23 legal size bass, 10 perch or bream, 11 bass under legal size which were thrown back, and two fish listed only as "fish"—a total of 46. About 95 percent of the contestants were boys, but three girls were among the successful anglers.

Sponsors were the local Izaak Walton League and the Rockingham Game and Fish Association. Conservation Officer T. J. Starrett made a brief talk, after which prizes were awarded by Royal D. Kinchloe, Izaak Walton president; Raymond Stover, Izaak Walton Rodeo Chairman; Dr. O. F. Foley, Game and Fish Association president; and Elmer (Lem) Richards, the Association's Rodeo chairman.

In the excitement the young anglers devoured 200 hot dogs washed down with 200 bottles of cold drinks. The 12-inch bass caught by 13-year-old Larry Neff of Bridgewater was the largest bass caught by a boy and the 10½-inch bass caught by 8-year-old Susan Jane Runion of Moores Store was the record for a girl. Bobbie Ritchie of Broadway and Brenda Biller of Timberville were the pan-fish winners.

Winners and officials of fishing rodeo. Front row, left to right, Bobbie Ritchie, 11; Brendo Biller, 8; Susan Runion, 8; and Lorry Neff, 13. Back row, left to right, R. D. Kinchloe, Raymond Stover, T. J. Starrett, Lem Richardson, Dr. O. F. Foley.



# Deer Hunters!! Turkey Hunters!!

*How old is that deer you killed? How heavy? How old is that turkey? How much did it weigh? Was it a hen or gobbler? You can find out these things about that prize kill of yours if you want to. And your Game Commission wants to know these facts too, in order to manage better your deer herds and turkey populations.*

*This year we hope to find out this information west of the Blue Ridge Mountains by examining your turkey and deer kills at one of these checking stations listed below, where we will provide a man trained to take necessary measurements. This information can be found out only through you, the hunters. Please cooperate. Take your deer or turkey to the nearest station listed below, if possible.*

*Information learned from your deer is found on page 19, in the story "WHY REPORT YOUR DEER KILL?"*

*Information learned from your turkey is found on page 8, in the story, "WHAT STORY DOES YOUR BAGGED TURKEY TELL?"*

*Here's where technicians will examine your kill.*

County	Location	*Dates Technicians Will Be Present
Wythe	Sugar Grove, Texaco Station	Nov. 16, 17, 18
Giles	Big Stony Creek, Interior of Area	Nov. 16, 17, 18
Augusta	North River, Snook's Store	Nov. 16, 17, 18
Augusta	North River, Hankey Mtn. Tavern	Nov. 16, 17, 18
Augusta	Deerfield, Hoyes Store	Nov. 16, 17, 18
Bath	Bath Alum, Horn's Store	Nov. 16, 17, 18
Bath	Millboro Springs, Bill's Service	Nov. 16, 17, 18
Bath	Warm Springs, Riner's Service	Nov. 16, 17, 18
Bath	Mountain Grove, Hick's Service	Nov. 16, 17, 18
Rockingham	Route 259, Cootes Store	Nov. 16, 17, 18
Rockingham	Rawley Springs, Richard's Texaco	Nov. 16, 17, 18
Shenandoah	Mount Jackson, Farm Bureau	Nov. 16, 17, 18
Shenandoah	Edinburg, Atlantic Service Station	Nov. 16, 17, 18
Shenandoah	King's Crossing, King's Crossing Store	Nov. 16, 17, 18

*\*Stations will be open the entire week of hunting, but technicians will be present only on days indicated.*

*You can help your deer herd throughout the year by reporting to your local game warden or game technician all sick, injured or dead deer found. Give a few minutes of your time to collect and report this information and assure the future of deer hunting in Virginia.*

# KNOW YOUR WILD TURKEY

Black, Smooth Tip



MALE BIRD

Brown, Fringed Tip



Feathers

FEMALE BIRD

Regular Edge



OLD BIRD

Irregular Edge



YOUNG BIRD

Spread  
Tail

VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES  
RICHMOND 13, VIRGINIA